

ABSTRACT

A photovoltaic (PV) laminate backplane assembly includes an insulative substrate and a metal foil bonded to the insulative substrate on a first surface and is electrically receptive for mounting a solar cell on a second surface opposite the first surface. The metal foil includes a light concentrator disposed at exposed regions on the second surface of the metal foil and is configured to reflect incident light thereon to the solar cell to increase a concentration of light on the solar cell in a range of about 1.5X to about 4X.